

# $\alpha$ -S450iB (large capacity)

## Mechanical specifications



Clamping unit						
Clamping mechanism		Double toggle				
Tonnage	kN   tonf	4500   450 / Increased (5000   500)				
Maximum and minimum die height Single platen	mm	1000-350				
Clamping stroke	mm	900				
Locating ring diameter	mm	Ø 200				
Tie bar spacing, HxV	mm	920 x 920				
Platen size, HxV	mm	1300 x 1300				
Minimum mould size, HxV *1	mm	535 x 535				
Maximum mould weight Single platen (Moving-Stationary) *2	kg	4500-4500				
Ejector stroke	mm	250				
Maximum ejector force	kN   tonf	150   15.0				
Injection unit						
Screw diameter	mm	68	72	80	90	100
Injection stroke	mm	300	320	360	360	360
Max. injection volume	cm <sup>3</sup>	1090	1303	1810	2290	2827
Nozzle touch force *6	kN   tonf	30   3.0 / Increased (50   5.0)				
<b>Max. Injection Speed mm/s *4</b>	<b>mm/s</b>	<b>180</b>				
Max. injection & Hold Pressure 1 *3*6	MPa	280	280	250	200	160
Max. injection & Hold Pressure 2 *3*7	MPa	280	280	250	200	160
Max. injection rate *4	cm <sup>3</sup> /s	653	732	904	1145	1413
Max. screw rotation speed	min <sup>-1</sup>	200				
Machine weight Double platen   Single platen *9	t	29.7				
Screw and Barrel						
Number of heater zones	Barrel	Nozzle adaptor 1 + Barrel 4				
Number of pyrometers	Nozzle	1				
Total heater wattage	kW	29.3	31.3	32.1	36.1	39.3

● standard    - not available    ( ) with hardware and/or software option

- \*1) Smaller mold than this size may limit clamp force.
- \*2) If the weight of a mold exceeds maximum mold weight, the molding condition may be limited.
- \*3) Maximum injection pressure and maximum hold pressure are the output of the injection unit, not the resin pressure.
  - Maximum injection pressure and maximum hold pressure are the maximum values that can be set.
- \*4) Maximum injection rate and maximum injection speed is a theoretical value.
  - Maximum injection rate and maximum injection speed can not be guaranteed when the injection pressure is maximum.
- \*5) The maximum injection pressure setting at high pressure filling mode option.
  - There is a limitation in injection time setting and pack time setting, when high pressure filling mode option is selected. (Contact sales for detail)
- \*6) Maximum injection pressure 1 and maximum hold pressure 1 are the values when the wear-resistant and anti-corrosion cylinder etc. is installed.
  - Maximum injection pressure and maximum hold pressure may vary depends on the installed screw and cylinder specifications.
- \*7) Maximum injection pressure 2 and maximum hold pressure 2 are the values when the general purpose cylinder etc. is installed.
  - Maximum injection pressure and maximum hold pressure may vary depends on the installed screw and cylinder specifications.
- \*8) Sprue break cannot be used with increased nozzle touch force option.
- \*9) The machine without option.
- \*10) The pressure conversion is 1MPa=10kgf/cm<sup>2</sup>.
- \*11) The molding condition might be limited by the resin. (Contact sales for detail)
- \*12) In case of the replacement to different screw diameter after shipment, some covers may be needed to replace. (Contact sales for detail)

# $\alpha$ -S450iB (large capacity) Dimensions / Clamp layout

